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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,526	09/19/2005	Peter Nesvadba	CO/21-22865/A/PCT	3612
324 7590 02/25/2009				
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ART UNIT		PAPER NUMBER		
1625				
MAIL DATE		DELIVERY MODE		
02/25/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

It is noted that applicants have filed an Amendment after the Final Rejection on 2/02/09; applicants' attorney has addressed the issues of record. The proposed amendment will be not entered because the amendment raises a new issue that would require further consideration and/or search; thus, it is not in a condition for allowance.

#### The Status of Claims

Claims 1-10 are pending.

Claims 1-10 are rejected.

#### New Issue

In the proposed amendment, claim 1 contains the phrases "all of the base needed for the oxidation is added" and "but less than an amount which would dissolve the bicarbonate or carbonate"; these raise a new issue that would require further consideration and/or search.

#### Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The modification of the claim 10 in the proposed amendment will overcome the rejection of claim 10 under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The rejection of Claims 1-10 under 35 U.S.C. 103(a) as being unpatentable over Gillet et al (US 6,538,141) has been maintained with reasons filed on 10/30/08.

Applicants' Argument

1. Applicants argue the following issues:

- a. The prior art process introduces a high volume of water because the prior art adds the base as a solution and even more water will be needed unlike the claimed process;
- b. The prior art is silent regarding the use of a solid base and it also excludes the use of a solid base because of the passages (see col. 3, lines 22-27) in spite of the remarks in the passages in which "efforts will be made to use solutions that are concentrated as possible";
- c. Reducing the amount of water being introduced into the reaction and controlling the pH of the reaction mixture are the significant improvement of the claimed invention;

With respect to the first and the third arguments, the Examiner has noted applicants' argument. However, as the applicants have noticed that "efforts will be made to use solutions that are concentrated as possible" in the prior art process, this means that the prior art process is directed toward reducing the amount of water being introduced into the reaction just as the claimed process does. Furthermore, regarding the controlling of the pH, the example 1 of the prior art expressly teaches the following (see col. 9, lines 35-38):

The amount of aqueous  $K_2CO_3$  solution is adjusted such that the pH of the aqueous phase of the two-phase medium is maintained at between 7.2 and 7.5 in the course of the addition.

This paragraph does imply that the reaction process in the prior art is performed under the controlled specific pH values.

Therefore, the prior art does disclose both issues related to the reduction of water usage the controlling of the pH in the prior art process. Thus, unlike the applicants' argument, the prior art process is still relevant to the claimed invention.

With respect to the second argument, the Examiner has noted applicants' argument. However, claim 1 expressly describes the base in the form of a solid together with water or an aqueous slurry. With this base in the form of the aqueous slurry, the prior art process does disclose potentially the use of the solid base or the aqueous slurry base in view of a generic teaching which describes an aqueous solution of a carbonate or hydrogen carbonate of an alkali metal or of an alkaline earth metal so that the pH of the aqueous solution of the two phase medium is maintained at a value from 5 to 9 (see col. 3, lines 9-13); among the

examples of carbonates of alkali metal or the alkaline earth metal elements, there are  $\text{LiCO}_3$  and  $\text{SrCO}_3$ , which are naturally slightly soluble in water according to Hawley's The Condensed Chemical Dictionary (see year 1971, 8<sup>th</sup> ed., pages 523 and 829); therefore, they can partially remain either in the solid form or slurry form just as the claimed process is intended to perform it in that manner. Therefore, it would have been obvious to the skilled artisan in the art to be motivated to use the carbonates of alkali metal or the alkaline earth metal elements in a solid form or slurry form in order to control the formation of water as well as the pH of the reaction mixture. This is because the skilled artisan in the art would expect such a manipulation to be within the purview of the skilled artisan in the art as shown in the prior art.

Thus, unlike the applicants' argument, the prior art process is still relevant to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Taylor Victor Oh, MSD,LAC  
Primary Examiner  
Art Unit: 1625

/Taylor Victor Oh/

Primary Examiner, Art Unit 1625

2/19/09